

REMARKS

Favorable reconsideration of this application in the light of the amendments and the following discussion is respectfully requested. Claims 1, 10, and 15 have been amended. Support for the amended claims is found in original claims 2 and 11 and in the specification on page 4, lines 5-10. Claims 2 and 11 have been cancelled. Claims 1, 3-10, 12-16 remain pending in this application for consideration.

Rejection Under 35 U.S.C. § 103

Claims 1-16 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Duchesne et al. US 5,015,693 or Blong et al. US 5,830,947.

According to the Examiner, each of the cited patents shows processing aids for thermoplastic hydrocarbon polymers. The poly(oxyalkylene)polymer is shown in both Blong and Duchesne. The Examiner stated that these patents further show fluoropolymers used in combination with the poly(oxyalkylene)polymers as process aids. The Examiner averred that the difference between the cited art and the claimed invention is the monomeric percentage of the fluoropolymer is not expressly stated in the art. The Examiner suggests that the monomeric percentage of vinylidene fluoride as claimed is rendered obvious from the art which suggests a majority of vinylidene fluoride monomer.

Applicants' Response to the Rejection Under 35 U.S.C. § 103

Applicants aver that the present invention is patentable over each of Duchesne et al (hereinafter Duchesne) and Blong et al (hereinafter Blong). Amended claims 1, 10, and 15 are directed to a fluoropolymer processing aid that includes a poly(oxyalkylene) polymer and a fluoropolymer. The fluoropolymer has interpolymerized units of vinylidene fluoride and at least one other monomer wherein the vinylidene fluoride content of the fluoropolymer is greater than 75% by weight. The fluoropolymer processing aid, when blended with a thermoplastic hydrocarbon polymer to form a melt processable composition, achieves an extrudate exhibiting no melt defects at a lower level of fluoropolymer processing aid when compared to a standard processing aid system.

Duchesne discloses an extrudable composition comprising a thermoplastic hydrocarbon polymer, a poly(oxyalkylene)polymer, and a fluorocarbon polymer. In column 4, lines 3-26, the reference specifies combinations of vinylidene fluoride with other monomers to create a copolymer. However, none of the patents referenced by Duchesne nor the examples embodied in Duchesne utilize a polymer wherein the vinylidene fluoride is greater than 75% by weight.

Blong expressly teaches away from the present invention. In column 7, lines 27-36, Blong states that monomers, such as vinylidene fluoride do not comprise greater than 15 weight percent of the polymeric composition.

According to the MPEP, “[t]o establish a prima facie case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations.” See MPEP 2143 (emphasis added).

Applicants aver that neither Duchesne nor Blong teach or suggest all the claim limitations of claims 1, 7, 10, or 15. The references fail to teach, suggest or disclose a fluoropolymer having interpolymerized units of vinylidene fluoride and at least one other monomer wherein the vinylidene fluoride content of the fluoropolymer is greater than 75% by weight. The fluoropolymer processing aid as claimed, when blended with a thermoplastic hydrocarbon polymer to form a melt processable composition, achieves an extrudate exhibiting no melt defects at a lower level of fluoropolymer processing aid when compared to a standard processing aid system.

The remaining claims 3-6, 8, 9, 12-14 and 16 all depend from claims 1, 7, 10 or 15. Thus, each of these claims is patentable at least on the basis of this dependency from a patentable base claim.

Consideration of the amended claims and withdrawal of the rejection is respectfully requested.

CONCLUSION

In view of the foregoing remarks, favorable reconsideration of the present application and the passing of this case to issue with all claims allowed is courteously solicited. Should the

Examiner wish to discuss any aspect of this application, applicants' attorney suggests a telephone interview in order to expedite the prosecution of the application.

Respectfully submitted,

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Date

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